

Date: 5 June 1991
Re: GPIB (IEEE-488) interface problems.
Affected instruments: SR510 Single Phase Lock-in,
SR530 Dual Phase Lock-in,
SR245 Boxcar Computer Interface
Symptoms: Error indications when used with fast GPIB controllers

Problem:

The GPIB controller which is used in these instruments (Motorola MC68488) will acknowledge data acceptance about 100 ns prior to actually reading the data. Very fast GPIB controllers can change the data to the next value during this interval, causing errors.

Solution:

The data acceptance signal, DAC or NDAC must be slowed by about 100 ns. This may be done by placing a 270 pF capacitor between pin 10 (ground) and pin 17 (DAC) on the GPIB bus driver (Part Number 75161) which is adjacent to the MC68488 controller.

